INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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100 North Senate Avenue
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Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

Mr. Robert Cappiello
Inland Paperboard and Packaging, Inc.
4030 Vincennes Road
Indianapolis, Indiana 46268

November 15, 2002

Re: Registered Construction and Operation Status,
163-14321-00026

Dear Mr. Cappiello:

The application from Inland Paperboard and Packaging, Inc., received on May 3, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following paperboard and packaging facility, to be located at 2000 Lynch Road, Evansville, Indiana, 47711 is classified as registered:

(a) Two (2) natural gas-fired boilers (identified as A-56 and A-80) each with a maximum heat input capacity of 16.7 MMBtu per hour. Boiler A-56 was installed in 1998 and boiler A-80 was installed in 1981.

(b) One (1) Flexographic printing unit with slotting and die cutting capabilities, identified as E-99, with a maximum capacity of 21,821 pounds of cardboard per hour.

(c) One (1) Flexographic printing unit with rotary die cutting and slotting capabilities, identified as EO-41, with a maximum capacity of 15,198 pounds of cardboard per hour.

(d) Three (3) Flexographic printing units with slotting, die cutting, and gluing capabilities, identified as EG-62, EG-43, and EG-16, with a maximum capacity of 23,348, 17,887, and 4,479 pounds of cardboard per hour, respectively.

(e) One (1) pneumatic conveyance system equipped with a cyclone used for transferring paper from the Flexographic printers/cutters to the trim collection area.

(f) Two (2) parts washers, including one (1) drum-mounted unit with a maximum capacity of 30 gallons of degreasing solvent and one (1) vat unit with a maximum capacity of 50 gallons of degreasing solvent.

(g) One (1) bulk laminator, identified as M-47, with a maximum throughput of 4,147 pounds per hour.

(h) One (1) starch storage silo, equipped with a baghouse for particulate control and having a maximum storage capacity of 91.5 tons of starch. The starch is used as a main ingredient in the glue.

Note: Bulk laminator M-23 will be replaced by M-47.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 2-6, the Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(a) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

AND

The Evansville Environmental Protection Agency
101 Court Street - Riverside One Building
Suite 205
Evansville, IN 47708

The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and the EEPA on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

   (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

3. Pursuant to 326 IAC 6-2-4, the particulate matter emissions from the A-56 boiler shall be limited to 0.44 pounds per million British thermal units heat input.

4. Pursuant to 326 IAC 6-2-3, the particulate matter emissions from the A-80 boiler shall be limited to 0.6 pounds per million British Thermal units heat input.

5. Pursuant to 326 IAC 6-3-2, the particulate matter emissions from the slotter and die cutter facilities above shall not exceed the pound per hour emission rate reported below:

Process Description	Process Weight Rate (tons/hr)	Process Weight Rate (lbs/hr)	PM Emission Allowables (lbs/hr)
Slotter/Die Cutter EG-16	2	4,479	7
Slotter/Die Cutter EG-14	11	21,821	20

Process Description	Process Weight Rate (tons/hr)	Process Weight Rate (lbs/hr)	PM Emission Allowables (lbs/hr)
Slotter/Die Cutter EG-43	12	23,348	21
Slotter/Die Cutter E-99	9	17,887	18
Slotter/Die Cutter EG-62	8	15,198	16

These limits were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

6. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with an emissions unit for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

7. Pursuant to 325 IAC 12 and 40 CFR 60, Subpart Dc, the Permittee shall maintain the following records for boiler A-56:

(1) Monthly fuel records.

(2) A certification signed by the owner or operator that the records of the fuel usage represent all of the fuel combusted during the period.

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to this boiler except when otherwise specified in 40 CFR 60, Subpart Dc.

8. The Permittee shall maintain records in accordance with (A) through (C) below. Records maintained for (A) through (C) shall be taken monthly and shall be complete and sufficient to establish compliance with the Registration status and to ensure that 326 IAC 8-5-5 (Graphic Arts Operations) is not applicable.

(A) The amount of volatile organic compounds (VOC) and hazardous air pollutants (HAPs) content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(B) The cleanup solvent usage for each month;

(C) The total VOC and HAP usage for each month;

(D) The amounts of coating material and solvent disposed or recycled each month.

Any change or modification which may increase the potential emissions to 25 tons per year or more of volatile organic compounds must be approved by IDEM, OAQ before any such change may occur. Additionally, any change or modification which may increase the potential emissions of a single HAP to greater than 10 tons per year or a combination of HAPs to greater than 25 tons per year must be approved by IDEM, OAQ before such change may occur.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Branch
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

AND

The Evansville Environmental Protection Agency
101 Court Street - Riverside One Building
Suite 205
Evansville, IN 47708

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Evansville EPA if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Alicia Baker, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Ms. Baker. Questions may also be directed to Ms Leslie Sams, Permitting Specialst, EEPA at 101 Court St., Ste. 205, Riverside One Bldg., Evansville, Indiana, 47708 or call (812) 435-6145, or to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/ARB

cc: File - Vanderburgh County
Vanderburgh County Health Department
Air Compliance - Scott Anslinger

Southwest Regional Office
Permit Tracking - Sara Cloe
Technical Support and Modeling - Michele Boner
Compliance Branch - Karen Nowak
Evansville Environmental Protection Agency

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	**Inland Paperboard and Packaging, Inc.**
Address:	**2000 Lynch Road**
City:	**Evansville, Indiana 47711**
Authorized individual:	**Robert Cappiello**
Phone #:	**317-879-4227**
Registration #:	**163-14321-00026**

I hereby certify that Inland Paperboard and Packaging, Inc. is still in operation and is in compliance with the requirements of Registration 163-14321-00026.

Name (typed):
Title:
Signature:
Date:

November 15, 2002
Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Inland Paperboard and Packaging, Inc.
Source Location:	2000 Lynch Road, Evansville, Indiana 47711
County:	Vanderburgh
SIC Code:	2653
Operation Permit No.:	163-14321-00026
Permit Reviewer:	ERG/ARB

The Office of Air Quality (OAQ) has reviewed an application from Inland Paperboard and Packaging, Inc. (formerly known as Inland Container) relating to the construction and operation of a paperboard and packaging facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Two (2) natural gas-fired boilers (identified as A-56 and A-80) each with a maximum heat input capacity of 16.7 MMBtu per hour. Boiler A-56 was installed in 1998 and boiler A-80 was installed in 1981.

(b) One (1) Flexographic printing unit with slotting and die cutting capabilities, identified as E-99, with a maximum capacity of 21,821 pounds of cardboard per hour.

(c) One (1) Flexographic printing unit with rotary die cutting and slotting capabilities, identified as EO-41, with a maximum capacity of 15,198 pounds of cardboard per hour.

(d) Three (3) Flexographic printing units with slotting, die cutting, and gluing capabilities, identified as EG-62, EG-43, and EG-16, with a maximum capacity of 23,348, 17,887, and 4,479 pounds of cardboard per hour, respectively.

(e) One (1) pneumatic conveyance system equipped with a cyclone used for transferring paper from the Flexographic printers/cutters to the trim collection area.

(f) Two (2) parts washers, including one (1) drum-mounted unit with a maximum capacity of 30 gallons of degreasing solvent and one (1) vat unit with a maximum capacity of 50 gallons of degreasing solvent.

(g) One (1) bulk laminator, identified as M-23.

(h) One (1) starch storage silo, equipped with a baghouse for particulate control and having a maximum storage capacity of 91.5 tons of starch. The starch is used as a main ingredient in the glue.

Note: Bulk laminator M-23 will be replaced by M-47.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

(a) One (1) bulk laminator, identified as M-47, with a maximum throughput of 4,147 pounds per hour.

Note: Bulk laminator M-47 will replace the existing bulk laminator M-23.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) 026-001-001, issued on August 31, 1998; and

(b) I-MOD-026-001-001, issued on September 27, 1999.

All conditions from previous approvals were incorporated into this permit.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the cyclone be considered as an integral part of the pneumatic trim collection system:

(a) The cyclone enables paper to be transferred from the three flexo folder gluers, the rotary die cutter, and the flexo printer/slotter to a collection area. The paper could not be transferred to the collection area if the cyclone was inoperable.

(b) The company generates revenue by selling the collected paper to a paper recycler.

IDEM, OAQ has evaluated the justifications and agreed that the cyclone will be considered as an integral part of the pneumatic trim collection system. Therefore, the permitting level will be determined using the potential to emit after the cyclone. Operating conditions in the proposed permit will specify that this cyclone shall operate at all times when the pneumatic trim collection system is in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
#1	Boiler A-56	33	6	7,798	482
#2	Boiler A-80	33	6	7,798	482

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 1, 2001, with additional information received on May 2, 2002 and June 19, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Pages 1 through 8).

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	5.3
PM-10	5.3
SO_2	0.1
VOC	16.6
CO	12.3
NO_x	14.6

HAP's	Potential To Emit (tons/year)
Glycol Ethers	2.0
All other HAPs	1.2
TOTAL	3.2

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Maintenance
CO	Attainment

Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Vanderburgh County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	5.3
PM10	5.3
SO_2	0.1
VOC	16.6
CO	12.3
NO_x	14.6

This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

(a) Boiler A-56 is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Dc), because this boiler was constructed* after June 9, 1989 and has a heat input capacity of greater than 10 MMBtu per hour, but less than 100 MMBtu per hour. However, the boiler is only subject to the reporting requirements in 40 CFR 60.48c, because this boiler is natural gas-fired. Pursuant to 325 IAC 12 and 40 CFR 60, Subpart Dc, the Permittee shall maintain the following records for boiler A-56:

(1) Monthly fuel records**.

(2) A certification signed by the owner or operator that the records of the fuel usage represent all of the fuel combusted during the period.

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to this boiler except when otherwise specified in 40 CFR 60, Subpart Dc.

Boiler A-80 is not subject to the requirements of the New Source Performance Standards 40 CFR 60, Subpart Dc (326 IAC 12), because the boiler was constructed* prior to June 9, 1989 and has not undergone any modifications or reconstructions meeting the definitions in 40 CFR 60.14 and 40 CFR 60.15.

*Note: Pursuant to 40 CFR 60.2, Subpart A, construction is defined as fabrication, erection, or installation of an affected facility.
**Note: Monthly fuel records have been approved for natural gas-fired facilities (see EPA's Applicability Determination Index, Control Number 0100077).

(b) This source is not subject to the New Source Performance Standard 326 IAC 12 (40 CFR 60, Subpart QQ) because this source does not have any publication rotogravure printing presses.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. The degreasing operations are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart T because the degreasing operations do not use halogenated solvents.

(d) This source is not subject to National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR 63, Subpart KK) because this source is not a major source of hazardous air pollutants (HAPs).

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NOx and VOC, and is located in Vanderburgh County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings)as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the printers, gluers, and laminator each have the potential to emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

None of the emission units located at this source have potential VOC emissions equal to or greater than twenty five (25) tons per year; therefore, this source is not subject to the provisions of 326 IAC 8-1-6.

326 IAC 6-1 (Nonattainment Area Limitations)

Although this source is located in Vanderburgh County, it is not subject to the provisions of 326 IAC 6-1 because the potential to emit particulate matter is less than 100 tons per year and the actual emissions of particulate matter are less than 10 tons per year.

326 IAC 6-1-16 (Vanderburgh County)

The source previously had a natural gas and oil-fired boiler that was limited by this rule to 0.03 pounds of PM per MMBtu. This boiler was removed from this source in 1998. The source currently operates only two natural gas-fired boilers (identified as A-56 and A-80). Therefore, 326 IAC 6-1-16 no longer applies to this source.

326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emission limitation for boiler A-80 is calculated using the following equation:

This limitation is based on the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 0.99 \text{ lbs/MMBtu}$$

where

$C = 50 \text{ u/m}^3$
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr) = 16.7 MMBtu/hr + 11.7 MMBtu/hr = 28.4 MMBtu/hr
N = number of stacks = 2
a = plume rise factor (0.67)
h = stack height (ft) = 33 ft.
*Note: Q includes the obsolete gas/oil boiler that was limited in 326 IAC 6-1-16 and the 16.7 MMBtu/hr boiler installed in 1981.

However, pursuant to 326 IAC 6-2-3(e), this boiler shall be limited to 0.6 pounds per MMBtu heat input because it has a heat input of less than 250 MMBtu per hour and it began operation after June 8, 1972.

326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)

The natural gas boiler A-56 is subject to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating) because it was constructed in 1998 which is after the applicability date of September 21, 1983 for this rule. Pursuant to this rule, the particulate matter emissions from the A-56 boiler shall be limited to 0.44 pounds per million British thermal units heat input. The particulate matter (PM) from the following unit shall be limited as follows:

Year	Unit	Q (MMBtu/hr)	Pt (lb/MMBtu)	Emission Limit (lb/MMBtu) for each unit
1998	A-56	16.7 + 16.7 = 33.4	0.44	0.44

$$Pt = \frac{1.09}{Q^{0.26}}$$

where Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and
Q = Total source maximum operating capacity (MMBtu/hr)

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2, the particulate matter emissions from the equipment listed above shall not exceed the pound per hour emission rate reported below:

Process Description	Process Weight Rate (tons/hr)	Process Weight Rate (lbs/hr)	PM Emission Allowables (lbs/hr)
Slotter/Die Cutter EG-16	2	4,479	7
Slotter/Die Cutter EO-41	11	21,821	20
Slotter/Die Cutter EG-43	12	23,348	21
Slotter/Die Cutter E-99	9	17,887	18
Slotter/Die Cutter EG-62	8	15,198	16

These limits were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10\ P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The flexographic printing operations is a method of rotary printing that employs quick drying inks and flexible raised relief image plates. Since the flexographic printing operation is a roll coating method, it is exempt from the requirements of 326 IAC 6-3.

326 IAC 8-3-2 (Cold Cleaner Operations)

The degreasing operations consist of two cold cleaners, both constructed after January 1, 1980; therefore pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with an emissions unit for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreasing operations consist of two cold cleaner degreasers, both constructed after July 1, 1990, however, Section 5 does not apply to this equipment because the degreasers have a remote solvent reservoir.

326 IAC 8-5-5 (Graphic Arts Operations)

The printing operations emit less than twenty-five (25) tons per year of volatile organic compounds, therefore 326 IAC 8-5-5 does not apply.

Conclusion

The construction and operation of this paperboard and packaging facility shall be subject to the conditions of the attached proposed Registration 163-14321-00026.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR<100
Small Industrial Boiler

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
41.8	366.2

	Pollutant					
	PM*	PM10*	SO2	NO_x	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	1.39	1.39	0.11	18.31	1.01	15.38

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR<100
Small Industrial Boiler

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.845E-04	2.197E-04	1.373E-02	3.296E-01	6.225E-04

HAPs - Metals

	Lead	Cadmuim	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	9.154E-05	2.014E-04	2.563E-04	6.957E-05	3.845E-04

Total HAPs = 0.346 tpy

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Trim Calculation

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Year 2000 Maximum throughput of baled trim waste =	6987	tons/yr
Production Factor =	5.8	
Adjusted Maximum throughput of baled trim waste =	40524.6	tons/yr

0.10 % of the trim waste is dust.

Uncontrolled PM-10 Emissions =	40.5	tons/yr
Control Efficiency =	90%	
Controlled Emissions =	**4.05**	**tons/yr**

Methodology: (Year 2000 Maximum Throughput of Baled Trim Waste)*(Production Factor) = Adjusted Maximum Throughput of Baled Trim Waste
(Adjusted Maximum Throughput of Baled Trim Waste)*(Fraction of Trim Waste That is Dust) = Uncontrolled PM-10 Emissions

trim is baled and sold as a product.

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Using Corrugator Production as limiting factor

Maximum Production

Weight of products =	0.18	lbs/SF
Maximum corrugator speed =	950	feet/minute
Maximum web width =	8.16	feet

Potential Production =	4,074,451,200	SF/yr
	733,401,216	lbs/yr
	366,701	tons/yr

Methodology: Potential Production = (950 feet/min)*(8.16 feet)*(60 min/hr)*(8760 hr/yr)*(0.18 lbs/SF)*(1 ton/2000 lbs)

2000 Actual Production =	63,177	tons/yr
Production Factor =	5.8	

Methodology: Production Factor = (366,701 tpy)/(63,177 tpy)

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Ink Usage

2000 Actual Usage =	103407	lbs/yr
Maximum Usage =	599760.6	lbs/yr

Worst Case Ink:Bandkers Box II Black

VOC weight % =	3.60%
HAP weight % =	0.68%

VOC Emissions =	**10.80**	**tpy**
HAP Emissions =	**2.04**	**tpy**

Glue Usage
Glue S3461

2000 Actual Usage =	522	lbs/yr
Maximum Usage =	3027.6	lbs/yr

VOC weight % =	1.06%
HAP weight % =	0.78%

VOC Emissions =	**0.02**	**lbs/yr**
HAP Emissions =	**0.01**	**lbs/yr**

Glue WB3701

2000 Actual Usage =	283742	lbs/yr
Maximum Usage =	1645704	lbs/yr

VOC weight % =	0.48%
HAP weight % =	0.10%

VOC Emissions =	**3.95**	**lbs/yr**
HAP Emissions =	**0.86**	**lbs/yr**

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Product Usage =	300	gallons/year
VOC Content =	100%	
Density =	6.54	pounds per gallon

VOC Emissions =	**0.98 tons per year**

Methodology: (Product Usage)*(VOC Content)*(Density)*(1 ton/2000 pounds)

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Maximum Capacity of Silo =	91.5	tons of starch/fill
Emission Factor =	0.00049	pounds of PM/ton of starch

*Emission Factor is from AP-42 Table 9.9.7-1 for Starch Bulk Loadout-Fabric Filter

PM Emissions Per Fill=	0.04	pounds of PM/fill

Methodology: PM Emissions Per Fill = (Maximum Capacity of Silo)*(Emission Factor)

Starch Usage =	1,775	tons of starch /year 2000
Production Factor =	5.8	
Maximum Starch Usage =	10,295	maximum tons of starch per year

Methodology: Maximum Starch Usage = (Starch Usage)*(Production Factor)

PM Emissions =	**0.0025**	**tons of PM/year**

Methodology: PM Emissions = (Maximum Starch Usage)*(1/Maximum Capacity of Silo)*(PM Emissions Per Fill)*(1 ton/2000 pounds)

*Note: The silo dust collection system is integral to the process because it allows quick filling without damage to the silo, it collects corn starch the primary raw material, and if saves money by collecting the raw material that would otherwise be lost in the displaced air.

Summary Table

Company Name: Inland Paperboard and Packaging, Inc
Address City IN Zip: 2000 Lynch Road, Evansville, IN 47701
CP: 163-14321
Plt ID: 163-00026
Reviewer: ERG/AR
Date: 5/2/02

Potential Emissions in Tons/Year

	PM	PM-10	SO2	NOx	VOC	CO	HAPs
Silo	0.0025	0.0025	-------	-------	-------	-------	-------
Boilers	1.39	1.39	0.11	18.31	1.01	15.38	0.35
Ink	-------	-------	-------	-------	10.80	-------	2.04
Glue	-------	-------	-------	-------	3.97	-------	0.87
Corn Starch	0.12	0.12	-------	-------	-------	-------	-------
Degreaser	-------	-------	-------	-------	0.98	-------	-------
Trim	4.05	4.05	-------	-------	-------	-------	-------
Total	5.56	5.56	0.11	18.31	16.76	15.38	3.26